# 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING. 4-\*6 "L" SHAPED BARS FOR WINGS OVER 12'-0" LONG WING LENGTH AI BARS LI-0" LEVEL OF BEARING & PILES

## W BARS 4-#6 "L" SHAPED BARS FOR WINGS OVER 12'-O" LONG

SECTION B-B
SEE STD. 12.1 & 12.2 FOR NOTES & DETA

### DESIGNER NOTES

THIS TYPE OF WING MAY BE USED IN LIEU OF WINGS PARALLEL TO ROADWAY IF APPROVED BY THE BUREAU OF STRUCTURES DESIGN SECTION. DO NOT USE FOR STREAM CROSSINGS WHEN HIGH WATER ELEVATION IS ABOVE TOP OF BERM ELEVATION.

 $^*$ use  $2^{\prime}/_2$ :1for the unstable clays which are sometimes encountered in northwest wisc. (superior area)

◆ WHEN TIMBER RAILING IS USED AS PER STANDARD 30.23, AND THE SKEW IS > 0°, THIS CONSTRUCTION JOINT SHALL BE MANDATORY, THE WING CONCRETE SHALL BE PLACED ABOVE CONSTR. JT. AFTER THE TIMBER END POSTS ARE IN PLACE.

### DESIGN LOADS (WINGS)

LIVE LOAD = 1'-0" SURCHARGE LOAD FACTOR = 1.3 (5/3 LL + 5/3 E) HORIZONTAL EARTH LOAD = 33 LBS. PER SO. FT. EOUIV. FLUID PRESSURE fy = 60,000 P.S.I. f'c = 3,500 P.S.I.

### TABLE A

WING LENGTH		WING	HEIGHT		
	8'-6"	10'-0"	11'-6"	13'-0"	BARS
10'-0"	4-#5	4-#5	5-#5		w
	2-#5	2-#5	2-#5		WΤ
	4-#6	4-#6	4-#6		A1
12'-0''		4-#7	5-#7	4-#8	W
		2-#7	2- <b>#7</b>	2-#8	wT
		4-#6	5-#6	4-#7	A1
16'-0"		5-#8	6-#8	5-#9	W
		2-#8	2-#8	2-#9	WT
		6-#6	4-#8	6-#7	A1
20'-0"			8-#8	8-#9	w
			2-#8	2-#9	WT
			6-#8	7-#8	A1

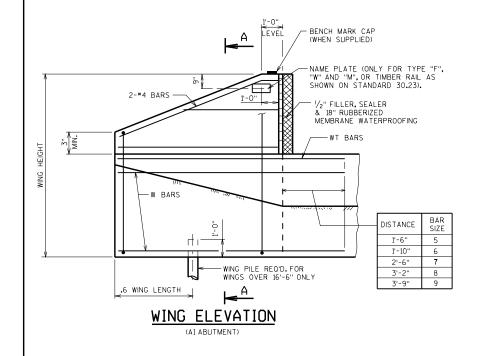
A WING PILE REQUIRED

## DETAILS FOR WINGS PARALLEL TO ALL ABUTMENT CENTERLINE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DEVELOPMENT SECTION

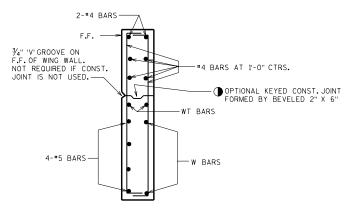
APPROVED: DATE: 3-06

### PLAN FOR TYPE A1 ABUTMENT



LEVEL

(WHEN REQ'D.) -



SECTION A-A

- 1/2" FILLER & SEALER